

# WEST Search History

10/ 220,296  
10/635,898

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DATE: Thursday, July 01, 2004

Hide?	Set Name	Query	Hit Count
		<i>DB=EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L12	L11 and ((gel\$3 or gelatinous ) near3 phase)	23
<input type="checkbox"/>	L11	((multiphase or multiple phase or multi-phase or multiple or triple or triphase\$1 or tri-phase\$1) near5 (emulsion or composition))	2283
		<i>DB=PGPB; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L10	=2002	31
<input type="checkbox"/>	L9	L8 and ((gel\$3 or gelatinous ) near3 phase)	40
<input type="checkbox"/>	L8	((multiphase or multiple phase or multi-phase or multiple or triple or triphase\$1 or tri-phase\$1) near5 (emulsion or composition)).ti,ab,clm.	578
		<i>DB=USPT; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L7	l3 and (gelatinous near3 phase) not l5	0
<input type="checkbox"/>	L6	L5 not l4	57
<input type="checkbox"/>	L5	L3 and (gel\$3 near3 phase)	60
<input type="checkbox"/>	L4	L3 and (gel\$3 near3 phase near5 (inner or core))	3
<input type="checkbox"/>	L3	((multiphase or multiple phase or multi-phase or multiple or triple or triphase\$1 or tri-phase\$1) near5 (emulsion or composition)).ti,ab,clm.	1145
<input type="checkbox"/>	L2	L1 and (gel\$3 near3 phase)	275
<input type="checkbox"/>	L1	((multiphase or multiple phase or multi-phase or multiple or triple or triphase\$1 or tri-phase\$1) near5 (emulsion or composition))	9032

END OF SEARCH HISTORY

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 NEWS 4 May 19 PROUSDDR: One FREE connect hour, per account, in both May  
 and June 2004  
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 NEWS 6 May 12 Polymer links for the POLYLINK command completed in REGISTRY  
 NEWS 7 May 17 FRFULL now available on STN  
 NEWS 8 May 27 New UPM (Update Code Maximum) field for more efficient patent  
 SDIs in Caplus  
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 NEWS 13 Jun 28 ANTE, AQUALINE, BIOENG, CIVILENG, ENVIROENG, MECHENG,  
 and WATER from CSA now available on STN(R)

NEWS EXPRESS MARCH 31 CURRENT WINDOWS VERSION IS V7.00A, CURRENT  
 MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
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FILE 'BIOSIS' ENTERED AT 19:12:15 ON 01 JUL 2004

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=> s (multiphase or multiple or multi-phase or multi or triple or triphase# or tri-phase#) (p) (e)  
 PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH  
 FIELD CODE - 'AND' OPERATOR ASSUMED 'I-PHASE#) (P) '  
 L1 121696 (MULTIPHASE OR MULTIPLE OR MULTI-PHASE OR MULTI OR TRIPLE OR  
 TRIPHASe# OR TRI-PHASE#) (P) (EMULSION OR COMPOSITION OR SYSTEM)

=> s 11 and (gel or gelled or gelatinous or gelling) (n) (phase)  
 L2 37 L1 AND (GEL OR GELLED OR GELATINOUS OR GELLING) (N) (PHASE)

=> dup rem 12  
 DUPLICATE IS NOT AVAILABLE IN 'KOSMET'.  
 ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE  
 PROCESSING COMPLETED FOR L2  
 L3 32 DUP REM L2 (5 DUPLICATES REMOVED)

=> d 13 ibib kwic

L3 ANSWER 1 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

## Full Text

ACCESSION NUMBER: 2004:312282 CAPLUS  
 DOCUMENT NUMBER: 140:326654  
 TITLE: Novel topical compositions with an oily outer phase  
 and process for their preparation  
 INVENTOR(S): Amalric, Chantal; Roso, Alicia; Michel, Nelly;  
 Tabacchi, Guy  
 PATENT ASSIGNEE(S): Societe D'exploitation De Produits Pour Les Industries  
 Chimiques-Seppic, Fr.  
 SOURCE: U.S. Pat. Appl. Publ., 12 pp., Cont.-in-part of U.S.  
 Pat. Appl. 2003 133,957.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004071642	A1	20040415	US 2003-635898	20030807
WO 2002062305	A1	20020815	WO 2002-FR430	20020205
W: JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
US 2003133957	A1	20030717	US 2002-220296	20020912
PRIORITY APPLN. INFO.:			WO 2002-FR430	W 20020205
			US 2002-220296	A2 20020912
			FR 2001-1480	A 20010205

ST topical emulsion oily aq gel phase; sunscreen emulsion triple phase

=> d 13 ibib kwic 2-32

L3 ANSWER 2 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

## Full Text

ACCESSION NUMBER: 2004:105121 CAPLUS  
 DOCUMENT NUMBER: 140:241502  
 TITLE: Supramolecular Association in the System  
 Water-Lysozyme-Lithium Perfluorononanoate  
 AUTHOR(S): Sesta, Bianca; Gente, Giacomo; Iovino, Alessandro;  
 Laureti, Fabrizio; Michiotti, Paolo; Pausco,  
 Ottorino; Palacios, Aida C.; Persi, Livio; Princi,  
 Antonio; Sallustio, Simona; Sarnthein-Graf, Carlo;

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CAPALBI, Antonio; LA MESA, Camillo  
 CORPORATE SOURCE: Dipartimento di Chimica, Universita di Roma La  
 Sapienza, Rome, 00185, Italy  
 SOURCE: Journal of Physical Chemistry B (2004), 108(9),  
 3036-3043  
 CODEN: JPCBFK; ISSN: 1520-6106  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 REFERENCE COUNT: 72 THERE ARE 72 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Mixts. contg. water, lysozyme (LYS), and a fluorinated surfactant (LiPFN)  
 have been investigated in a wide range of protein-to-surfactant ratios.  
 Depending on compn., sample consistency and coexistence of the different  
 phases, different exptl. methods were used. Volumetric, viscometric,  
 surface tension, potentiometric (by a home-built ion-selective electrode),  
 turbidity, optical polarizing microscopy, and 19F NMR expts. were used.  
 The results obtained from the above methods have been interpreted in terms  
 of a combination of electrostatic and hydrophobic contributions to the  
 stability of the different phases formed in the water-LYS-LiPFN system.  
 Solns., gel phases, and ppts. have been obsd. in the range investigated in  
 more detail. Multiphase regions have also been obsd. Such rich  
 polymorphic behavior implies the existence of interactions between the  
 protein and surfactant. The gel phase is presumably formed by  
 interconnections between micelles and protein-surfactant complexes, held  
 together by protein-bound micelles and forming, presumably, interconnected  
 necklace structures. The overlapping of different protein-surfactant  
 aggregates to form gels requires a significant amt. of time. Its  
 formation obeys a vol. fraction statistics; the width of the gel  
 phase, in fact, is controlled by the amt. of protein-surfactant complex.

L3 ANSWER 3 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1

## Full Text

ACCESSION NUMBER: 2004:30161 CAPLUS  
 DOCUMENT NUMBER: 140:123987  
 TITLE: Continuous-flow separation and pre-concentration  
 coupled on-line to solid-surface fluorescence  
 spectroscopy for the simultaneous determination of  
 o-phenylphenol and thiabendazole  
 AUTHOR(S): Garcia Reyes, J. F.; Llorent Martinez, E. J.; Ortega  
 Barrales, P.; Molina Diaz, A.  
 CORPORATE SOURCE: Faculty of Experimental Sciences, Department of  
 Physical and Analytical Chemistry, University of Jaen,  
 Jaen, 23071, Spain  
 SOURCE: Analytical and Bioanalytical Chemistry (2004), 378(2),  
 429-437  
 CODEN: ABCNBP; ISSN: 1618-2642  
 PUBLISHER: Springer-Verlag  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB A novel and single flow-injection system combined with solid-surface  
 fluorescence detection is proposed for the resoln. of a mixt. of two  
 widely used pesticides (o-phenylphenol and thiabendazole). The  
 continuous-flow methodol. is based on the implementation of online  
 pre-concn. and sepn. of both analytes on the surface of C18 silica gel  
 beads placed just inside the flow cell, implemented with gel-phase  
 fluorimetric multi-wavelength detection (using 305/358 and 250/345 nm as  
 excitation/emission wavelengths for thiabendazole and o-phenylphenol,  
 resp.). The sepn. of the pesticides was possible owing to the different  
 retention/desorption kinetics of their interactions with the solid support

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in the zone where the stream impinges on the solid material. No previous sepn. of the analytes before they reach the flow cell is needed thereby simplifying substantially both the procedure and the manifold. By using a sample vol. of 2,600 µL, the **system** was calibrated in the range 0.5-16 and 5-120 ng mL<sup>-1</sup> with detection limits of 0.09 and 0.60 ng mL<sup>-1</sup> for thiabendazole ando-phenylphenol, resp. The RSD values (n=10) were about 1% for both analytes. The proposed methodol. was applied to environmental water samples and also to various com. pesticide formulations contg. both analytes. Recovery percentages were 97-103% and 98-102% for thiabendazole ando-phenylphenol, resp.

L3 ANSWER 4 OF 32 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

### Full Text

ACCESSION NUMBER: 2004:111949 BIOSIS  
DOCUMENT NUMBER: PREV200400114550  
TITLE: Gradient packing densities in **gel-phase** lipid domains revealed by multicolor fluorescent labeling strategies.  
AUTHOR(S): Heetderks, Julia J. [Reprint Author]; Weiss, Paul S.  
CORPORATE SOURCE: Chemistry, Pennsylvania State University, University Park, PA, USA  
SOURCE: Biophysical Journal, (January 2004) Vol. 86, No. 1, pp. 203a-204a. print.  
Meeting Info.: 48th Annual Meeting of the Biophysical Society. Baltimore, MD, USA. February 14-18, 2004. Biophysical Society.  
ISSN: 0006-3495 (ISSN print).  
DOCUMENT TYPE: Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)  
LANGUAGE: English  
ENTRY DATE: Entered STN: 25 Feb 2004  
Last Updated on STN: 25 Feb 2004

TI Gradient packing densities in **gel-phase** lipid domains revealed by multicolor fluorescent labeling strategies.

AB Giant unilamellar **multi**-component lipid vesicles are used to model domain/raft formation in membranes. Domains spontaneously assemble from the different lipids due to different. . . content has no effect on membrane structure. The lipids used in our study include one fluid phase (DLPC) and one **gel phase** (DPPC) component at room temperature, and the variations in labeling all occur within the putative **gel phase** domains. Different dyes are shown to localize to areas with different packing structure: C18-DiD remains in the less tightly packed. . . although phase contrast microscopy shows a continuous membrane surface. This shows the complexity of structure in a very simple membrane **system**, and suggests that small changes in environmental conditions or labeling will have a large impact on observed properties of the **system**.

IT Major Concepts

Biochemistry and Molecular Biophysics

IT Chemicals Biochemicals

DLPC; DPPC; **gel-phase** lipid domains: gradient packing densities; giant unilamellar multi-component lipid vesicles

L3 ANSWER 5 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

### Full Text

ACCESSION NUMBER: 2003:718620 CAPLUS  
DOCUMENT NUMBER: 139:351034  
TITLE: Gelation in **multiple link system**  
AUTHOR(S): Suematsu, Kazumi  
CORPORATE SOURCE: Institute of Mathematical Science, Mie, 512-1216, Japan  
SOURCE: Macromolecular Theory and Simulations (2003), 12(7), 476-483  
CODEN: MTHSEK; ISSN: 1022-1344

# STN Columbus

PUBLISHER: Wiley-VCH Verlag GmbH Co. KGaA  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Gelation in **multiple link system**

AB The crit. point theory is generalized to include gelation in multilink system with  $f$  functional units and  $J$  junction points. The equations derived include, as special cases, the cyclotrimerization model of  $J = 3$ , and the R-Af model of  $J = 2$ . The theory is applied to the recent observation of the cyclotrimerization of bisphenol-A dicyanate. The theor. prediction agrees exactly with the Stutz-Simak observation,  $D_c = 0.504$ , and accords with the Georjon-Galy-Pascualt observation, giving a confirmation of the phys. soundness of the theory. Under the smoothness assumption, the authors derive post-gelation relationships with loop formation, the result suggesting the formation of permanent sol mols. that resist being absorbed into **gel phase** throughout an entire reaction process.

L3 ANSWER 6 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2

Full Text

ACCESSION NUMBER: 2002:643917 CAPLUS  
DOCUMENT NUMBER: 138:390680  
TITLE: The ultrastructure of tomatine adjuvant  
AUTHOR(S): Yang, Ya-Wun; Sheikh, Nadeem A.; Morrow, W. J. W.  
CORPORATE SOURCE: College of Medicine, School of Pharmacy, National Taiwan University, Taipei, 100, Taiwan  
SOURCE: Biomaterials (2002), 23(23), 4677-4686  
CODEN: BIMADU; ISSN: 0142-9612  
PUBLISHER: Elsevier Science Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB The tomatine adjuvant, consisting of tomatine,  $n$ -octyl- $\beta$ -D-glucopyranoside, phosphatidylethanolamine, cholesterol, and ovalbumin, has recently been shown to potentiate the immunogenicity of protein antigen and elicit cytotoxic T-lymphocyte responses in immunized animals. The physicochem. properties of tomatine adjuvant have not been characterized. The aim of this study was to examine the microstructure of this complex formulation, as directly related to its physicochem. properties. To elucidate the micromorphol. of this **system**, the tomatine adjuvant was sepd. by isopycnic ultracentrifugation, followed by freeze fracturing and examn. by transmission and SEM. The adjuvant mixt. was shown to be composed of several micro- and nano-structures. The major fraction obtained from isopycnic sepn. was shown to consist of flaky needle-like microcrystals, approx. 80-160 nm in width and 2-4  $\mu$ m in length. The tomatine crystals alone in 0.9% NaCl, on the other hand, were shown to be elongated hollow tubular crystals of hundreds of nanometers up to a few microns in length, along which  $n$ -octyl- $\beta$ -glucopyranoside was speculated to serve as a seeding microtemplate for gel crystn. of protein complexes. Indented marks within the **gel phase** were obsd. in the freeze fractured replicas of the adjuvant, suggesting that protein complexes may have been crystd. or pptd. within the gels. Several other forms of micro- and nano-structures were also obsd., showing **multiple-dispersion** features with gel characteristics. The presence of gel cryst. and **multiple-dispersed** phases is postulated to contribute to the sustained immunopotential effect of tomatine adjuvant.

L3 ANSWER 7 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

Full Text

ACCESSION NUMBER: 2002:546851 CAPLUS

# STN Columbus

DOCUMENT NUMBER: 139:129752  
 TITLE: Vesicles of one monoglyceride and two phospholipids: phase behavior and susceptibility to hydrolysis by glyceride lipase and phospholipase A2  
 AUTHOR(S): Vissing, Thomas; Ipsen, John H.; Callisen, Thomas H.  
 CORPORATE SOURCE: Department of Chemistry, Technical University of Denmark, Lyngby, DK-2800, Den.  
 SOURCE: Colloids and Surfaces, B: Biointerfaces (2002), 26(1-2), 147-157  
 CODEN: CSBBEQ; ISSN: 0927-7765  
 PUBLISHER: Elsevier Science B.V.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Mono-disperse, unilamellar vesicles of mixts. of three lipids: monomyristoylglycerol (MMG), dimyristoylphosphatidylcholine (DMPC), and dimyristoylphosphatidylglycerol (DMPG) were produced. The lipid suspensions were characterized by multi-angle dynamic light scattering (DLS); phase behavior was investigated by differential scanning calorimetry (DSC). The zwitterionic DMPC and the anionic DMPG display almost ideal mixing as binary mixts. under the authors' exptl. conditions. DSC further showed that MMG induces a gel-fluid co-existence and an increase in the main phase transition temp. for binary mixts. of 0-50 mol% MMG in DMPC and DMPG, resp. Similar nonideality was obsd. for ternary mixts. of 0-50 mol% MMG in lipid suspensions where the ratio of DMPC and DMPG was fixed at a molar ratio of 70:30. Thermodyn. calcns. on the phase behavior of the lipid mixts. were made by a two-dimensional regular soln. model. The theor. are in fine accordance with the exptl. obsd. nonideal mixing behavior of the MMG-phospholipid systems. Repulsive interaction parameters between MMG and the two phospholipids are found, in both the gel and the fluid phase. Strongest destabilizing effect of the monoglyceride is seen in the fluid phase. The susceptibility of the vesicles suspension to hydrolytic activity by a glyceride lipase and a phospholipase A2 (PLA2) was investigated. As a common platform to study the enzymic activities, a ternary mixt. of 23 mol% MMG in bilayers of 70:30 mol% DMPC/DMPG was chosen. Enzymic reactions were analyzed by spectrofluorometric measurements in combination with quant. HPLC. The phase behavior of the lipid substrates strongly affected the enzymic activities when probing different regions in the phase diagram. In this **system** PLA2-hydrolysis proceeded with no latency phase, and varied expectedly with the bilayer phase state with general preference for DMPG over DMPC. Vesicle stability was compromised by the PLA2 activity. Hydrolysis of MMG, catalyzed by the glyceride lipase, shows a different scenario than established for the PLA2 reactions; vesicles remained stable over the course of reaction, and a latency phase was found in expts. where a **gel phase** was present.

L3 ANSWER 8 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

## Full Text

ACCESSION NUMBER: 2001:798686 CAPLUS  
 DOCUMENT NUMBER: 135:348702  
 TITLE: Apparatus and process for forming novel spiral cosmetic and other products made of compositions of different chemical and physical properties  
 INVENTOR(S): Thibiant, Patrick; Long, Daniel; Witwit, Moe; Le Cavalier, Steven R.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 18 pp., Cont.-in-part of U.S. 6,245,344.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent

## STN Columbus

LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2001036467	A1	20011101	US 2001-877910	20010608
US 6245344	B1	20010612	US 1999-362764	19990728

PRIORITY APPLN. INFO.: US 1999-362764 A2 19990728

AB A method and app. are provided that allows two or more compns. to be filled with a spiral configuration into a single container. Each product may have completely different chem. and phys. properties, and each product may have a different function and purpose. The method includes providing at least two compds., arranged in sep. storage bins each having a pump and a hose attached thereto and pumping the at least two compds. through the resp. hoses into a nozzle assembly while at least one of the nozzle and container rotates with respect to the other; and combining predetd. amts. of each of the at least two compds. for creating the resulting product housed in a single container, wherein the resulting product has the at least two compds. formed in a spiral configuration. The compds. and compns. dispensed by the app. of the present invention are not limited to cosmetic and/or health care products. Any liq. or semiliquid compd. may be dispensed from the storage bins, including different colored waxes for making candles having novel spiral configurations. Plastics and other polymer materials may also be dispensed, and novel spiral configurations may also be formed by the app. of the present invention using these materials. For example, a **multiple**-phase swirled cosmetic compn. had a clear **gel phase** and a lotion phase. By having different ratios of the two products different needs, applications and skin types may be addressed. An aq. **system** contains (by wt.) water 51.50-85.00%, chelating agents 1.10-1.00%, preservatives 0.10-1.00%, UV absorbers 0.10-1.00%, humectants 2.00-6.00, vitamins 0.10-1.00%, esters 4.00-10.00%, emulsifiers 4.00-10.00%, fatty alcs. 1.00-4.00%, film formers 1.00-4.00%, silicones 1.00-4.00%, polytraps 1.00-4.00%, and dimethicones 0.50-1.50%. A lotion contains (by wt.) water 62.50-91.85%, Carbomer 0.40-1.00%, preservatives 0.05-1.00%, humectants 1.00-6.00%, chelating agents 0.10-1.00%, UV absorbers 0.10-1.00%, moisturizer/conditioners 0.50-3.00%, surfactants 0.10-1.00%, polymethacrylates 5.00-20.00%, dimethicones 0.70-1.50%, vitamins 0.10-1.00%, and heavy metals 0.10-1.00%.

L3 ANSWER 9 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

Full Text

ACCESSION NUMBER: 2001:731892 CAPLUS  
DOCUMENT NUMBER: 136:20437  
TITLE: Robust Phase Behavior of Model Transient Networks  
AUTHOR(S): Filali, Mohammed; Ouazzani, Mohamed Jamil; Michel, Eric; Aznar, Raymond; Porte, Gregoire; Appell, Jacqueline  
CORPORATE SOURCE: Groupe de Dynamique des Phases Condensees, CNRS-Universite Montpellier II, Montpellier, 34095, Fr.  
SOURCE: Journal of Physical Chemistry B (2001), 105(43), 10528-10535  
CODEN: JPCBFK; ISSN: 1089-5647  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS

AB The viscoelastic properties of certain complex fluids which are described in terms of a **multi**-connected transient network, were studied using a convenient model **system** composed of microemulsion droplets linked by



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telechelic polymers. The phase behavior of such systems has two characteristic features: a large monophasic region which consists of two subregions (a fluid sol phase and a viscoelastic **gel phase**) sepd. by a percolation line and a two-phase region at low vol. fraction with sepn. into a dil. sol phase and a concd. **gel phase**. From the plausible origin of these features, they are expected to be similar in different systems. The phase behavior of four different systems was studied as a function of the time scale of the dynamic response of the transient network; the systems are oil (decane) in water microemulsions differing by the stabilizing surfactant monolayer (cetylpyridinium chloride (CPCl)/octanol or TX100/TX35) and of two telechelic polymers which are end-grafted poly(ethylene oxide) chains, with end hydrophobic aliph. chains (C12H25 or C18H37). The structure of the four systems was established from small angle neutron scattering data; the size of the microemulsion droplets is const. in a given **system** upon addn. of telechelic polymer. In the CPCl systems the mean radius of the microemulsion droplets is  $62 \pm 1$  Å and follows narrow size distribution, and in the TX systems the mean radius is  $84 \pm 2$  Å with somewhat larger size distribution. The no. of polymers per microemulsion droplet can be calcd. precisely so that the phase behavior of the four systems can be compared in consistent units. A similar phase behavior in the four systems was found, as expected.

L3 ANSWER 10 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

### Full Text

ACCESSION NUMBER: 2001:667808 CAPLUS  
 DOCUMENT NUMBER: 135:247561  
 TITLE: Phase behavior of sodium naphthenates, toluene, and water  
 AUTHOR(S): Horvath-Szabo, Geza; Masliyah, Jacob H.; Czarnecki, Jan  
 CORPORATE SOURCE: Department of Colloid Chemistry, Eotvos University, Budapest, H1518, Hung.  
 SOURCE: Journal of Colloid and Interface Science (2001), 242(1), 247-254  
 CODEN: JCISA5; ISSN: 0021-9797  
 PUBLISHER: Academic Press  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB In a ternary phase diagram of sodium naphthenates (SN), toluene, and water the following phases can be formed at 25°: normal micellar soln.; inverse micellar soln.; lamellar liq. crystal; microemulsion; and turbid birefringent **gel phase**. The turbid **gel phase** contains lamellar liq. crystal structures. The SN is a mixt. of many individual components. This is the reason that no satn. concn. was found for SN in toluene and that there is only one single-phase range in the entire phase diagram. Large differences in W/O **emulsion** stability were obsd. within very small compn. ranges. The **emulsion** had low stability within the L1 and L2 two-phase and in the vicinity of the microemulsion phase range. In the presence of a liq. crystal phase, the **emulsion** was very stable even within the **multiphase** range contg. the microemulsion phase. The increased interface rigidity caused by the presence of the liq. crystal layer on the O/W interface is suggested as an interpretation of the obsd. increase in the **emulsion** stability. (c) 2001 Academic Press.

L3 ANSWER 11 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

### Full Text

ACCESSION NUMBER: 1999:451253 CAPLUS  
 DOCUMENT NUMBER: 131:77812  
 TITLE: Wastewater treatment plant for olive oil processing

# STN Columbus

effluents comprising a rotating biological contactor  
with the addition of linear or circular motion

INVENTOR(S): Siskos, Dimitrios  
PATENT ASSIGNEE(S): Greece  
SOURCE: PCT Int. Appl., 16 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9935097	A1	19990715	WO 1999-GR1	19990104
W: AL, AU, BG, IL, MK, TR, US, YU RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9916788	A1	19990726	AU 1999-16788	19990104
EP 968137	A1	20000105	EP 1999-900009	19990104
R: ES, FR, IT, PT				
PRIORITY APPLN. INFO.:			GR 1998-100001	19980102
			WO 1999-GR1	19990104

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB The invention refers to the capacity of an aerobic bioconversion **system** for the wastewater treatment of an olive oil processing plant, concerning the phytotoxicity redn. by means of a biocontactor having various shapes, which is either rotating and in line or in circle moving, while the treated wastewater is stationary or only statistically rotating, while the treated wastewater is moving. The invention refers to an addnl. transport motion either of the biocontactor, implemented by placing the biocontactor on a trolley-frame, or of the treated wastewater with the rotating biocontactor remaining fixed, implemented by kinetic energy addn. to the liq. (in all its treatment phases, esp. while the **gel phase**) by means of mixers etc. The addnl. transport motion of the biocontactor allows treatment of a **multiple** wastewater vol. The suggested capacity increase allows for **multiple** greater efficiency of the whole plant in constructional and operating point of view, comparing with the biocontactor of the former technique. The invention is applicable for bioreactors with aerobic microorganisms, whose breathing time can be practically utilized for the addnl. suggested motion (linear or circular) of either the biocontactor or the treaded wastewater, as is the case in olive oil processing plants.

L3 ANSWER 12 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

## Full Text

ACCESSION NUMBER: 1998:678198 CAPLUS  
DOCUMENT NUMBER: 130:34678  
TITLE: Surfactant Hydrophobic Effect on the Phase Behavior of Oppositely Charged Protein and Surfactant Mixtures: Lysozyme and Sodium Alkyl Sulfates

AUTHOR(S): Moren, Anna Karin; Khan, Ali  
CORPORATE SOURCE: Physical Chemistry 1 Center for Chemistry and Chemical Engineering, Lund University, Lund, SE-22100, Swed.

SOURCE: Langmuir (1998), 14(24), 6818-6826  
CODEN: LANGD5; ISSN: 0743-7463

PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Protein-surfactant interactions are investigated by following the phase

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equil. of three lysozyme-sodium alkyl sulfate-water systems with surfactants of varying alkyl chain length, C10SO4, C8SO4, and C6SO4, within the concn. range 20 wt % lysozyme, 20 wt % surfactant, and 80-100 wt % water. Phase behavior similar to that for the **system** lysozyme-C12SO4-water is obsd. The phase diagram of the C10SO4 **system** is dominated by a soln. phase, a **gel phase**, and a **multiphase** pptn. region. For the C8SO4 and C6SO4 systems a soln. phase, a pptn. region, and **multiphase** regions including gel are identified. However, no single **gel phase** is obsd. Surfactants are sparingly sol. in aq. solns. of lysozyme. Within the surfactant series the soly. is increased in the following order: C12SO4 < C10SO4 < C8SO4 < C6SO4. The compn. of the neutral ppt. is detd. to be about 8 surfactant mols. per protein mol. The extension of the pptn. region toward higher surfactant concns. is strongly dependent on the surfactant chain length; the shorter the chain length, the larger the pptn. region. This is explained by the max. yield of ppt. being stable upon addn. of a certain amt. of excess surfactant, which is concd. in the supernatant. The redissoln. of the ppt. is induced by surfactant aggregation. The concn. of surfactant in the supernatant for the dissoln. of the ppt. is less than the surfactant crit. micelle concn. in water. The exptl. detd. phase diagram can be understood qual. in terms of electrostatic and hydrophobic effects.

L3 ANSWER 13 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

### Full Text

ACCESSION NUMBER: 1997:695858 CAPLUS  
DOCUMENT NUMBER: 127:319517  
TITLE: Phase transitions in aqueous polymer polyether/polyhydroxy gel network  
AUTHOR(S): Seeboth, A.; Holzbauer, H. -R.; Lange, R.  
CORPORATE SOURCE: Institut fur Angewandte Chemie e. V., Berlin, D-12484, Germany  
SOURCE: Conference on Colloid Chemistry: In Memoriam Aladar Buzagh, Proceedings, 7th, Eger, Hung., Sept. 23-26, 1996 (1997), Meeting Date 1996, 156-159. Editor(s): Horvoelgyi, Z.; Nemeth, Zs.; Paszli, I. Hungarian Chemical Society: Budapest, Hung.  
CODEN: 65EWAR  
DOCUMENT TYPE: Conference  
LANGUAGE: English

AB The possibility of prepg. gel networks that exhibit **multiphase** transitions in connection with changing the transparency of the **system** depending on temp. variation was examd. Gel systems were prepd. from mixts. of aq. optically clear stock solns. of poly(vinyl alc.) (PVA) and ethoxylated poly(dimethylsiloxane) (ePS) by adding borax as crosslinking agent. The influence of the PVA/ePS ratio, the total polymer concn., and the borax concn. in the **system** on the resulting gel properties were studied in detail. The sol-gel **phase** transition could be influenced by the intermol. interaction between the OH groups of borax and PVA on one hand and intramol./intermol. interaction of PVA OH groups on the other hand. Therefore, the prepn. of gels with different polymer amts. is possible and gels with highly different thermal and mech. properties can be built up.

L3 ANSWER 14 OF 32 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

### Full Text

ACCESSION NUMBER: 1996:327611 BIOSIS  
DOCUMENT NUMBER: PREV199699049967  
TITLE: Properties of ganglioside G-M1 in phosphatidylcholine bilayer membranes.  
AUTHOR(S): Reed, Robert A.; Shipley, G. Graham [Reprint author]  
CORPORATE SOURCE: Dep. Biophysics, Boston Univ. Sch. Med., 80 E. Concord St., Boston, MA 02118-2394, USA

# STN Columbus

SOURCE: Biophysical Journal, (1996) Vol. 70, No. 3, pp. 1363-1372.  
 CODEN: BIOJAU. ISSN: 0006-3495.  
 DOCUMENT TYPE: Article  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 26 Jul 1996  
 Last Updated on STN: 27 Jul 1996

AB. . . to function as cell surface receptors, as well as participating in cell growth, differentiation, and transformation. In spite of their **multiple** biological functions, relatively little is known about their structure and physical properties in membrane systems. The thermotropic and structural properties of ganglioside G-M1 alone and in a binary **system** with 1,2-dipalmitoyl phosphatidylcholine (DPPC) have been investigated by differential scanning calorimetry (DSC) and x-ray diffraction. By DSC hydrated G-M1 undergoes. . . main transitions (limiting values, 39 and 44 degree C, respectively). X-ray diffraction studies indicate the presence of a single bilayer **gel phase** in zone 1 that can undergo chain melting to an L-alpha bilayer phase. A detailed hydration stud, of G-M1 (5.7 mol %)/DPPC indicated a conversion of the DPPC bilayer **gel phase** to an infinite swelling **system** in zone 1 due to the presence of the negatively charged sialic acid moiety of G-M1. At 30-61 mol %. . .

L3 ANSWER 15 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

## Full Text

ACCESSION NUMBER: 1997:336856 CAPLUS  
 DOCUMENT NUMBER: 127:49446  
 TITLE: Phase behavior of biopolymers at high solid concentrations  
 AUTHOR(S): Whitehouse, A. S.; Ashby, P.; Abeysekera, R.; Robards, A. W.  
 CORPORATE SOURCE: Nestle RandD Centre, York, UK  
 SOURCE: Gums and Stabilisers for the Food Industry 8, Proceedings of the International Conference, 8th, Wrexham, UK, July, 1995 (1996), Meeting Date 1995, 287-295. Editor(s): Phillips, Glyn O.; Williams, P. A.; Wedlock, David J. IRL Press: Oxford, UK.  
 CODEN: 64KIA8  
 DOCUMENT TYPE: Conference  
 LANGUAGE: English

AB Microscopy shows that phase sepn. prevails in mixed hydrocolloid confectionery. One expects it to influence the textural expression of the formula. The principal hydrocolloid ingredients used are starches, gelatins, pectins and gum arabic in a syrup medium contg. high levels of sugar solids and moisture typically in the range 10-20%. The microstructures found in the finished product are the consequence of both phase sepn. and evolution of the **multiphase** structure with time. Different microstructural types are identified: "**emulsion**", "bicontinuous networks", and "granular filler" which are believed to be related to the fluidity of the hydrocolloid phases following hydration/gelatinization and to the gelation of one or more of the coexistent phases. In more dil. binary mixts. of starch and gelatin, phase sepn. is found to occur at pH values around the isoelec. point of the gelatin, and mixed soln. at pH remote from the pI. Viscoelastic rheol. correlates with the microstructures found. Whether these and other findings in selected dil. binary systems hold in translation to high sugar/low moisture is the subject of continuing research in a collaborative LINK project.

IT Food **gelling**  
 Food rheology  
 Food viscoelasticity  
 (phase behavior of biopolymers at high solid concns.)

## STN Columbus

L3 ANSWER 16 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

Full Text

ACCESSION NUMBER: 1995:769912 CAPLUS  
 DOCUMENT NUMBER: 123:174693  
 TITLE: Method for quantitatively determining detergent fuel additives in fuel samples  
 INVENTOR(S): Brauer, Sally J.; Miin, Tsee-Chyau T.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: Can. Pat. Appl., 13 pp.  
 CODEN: CPXXEB  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2132806	AA	19950325	CA 1994-2132806	19940923
PRIORITY APPLN. INFO.:			US 1993-134114	19930924

AB Fuel additives in vehicle fuel samples are quant. detd. by gel permeation chromatog. (GPC). The vehicle fuel necessarily includes a detergent additive which is usually one component of a multi-component additive package (e.g., which also contains a carrier and a solvent for the detergent). Samples of the detergent additive-contg. vehicle fuel are thus subjected to gel permeation chromatog. by injection of the fuel sample into a mobile phase of the GPC **system**. In this regard, the mobile phase of the GPC **system** will have a viscosity which is substantially the same as the viscosity of the fuel sample so that the fuel sample may be injected directly (i.e., without first being dild.). A chromatogram is thus obtained having identifiable (and hence quantifiable) bands indicative of the detergent additive component.

IT 67-63-0D, 2-Propanol, fluorinated 68-12-2, uses 108-88-3, Toluene, uses 109-99-9, uses

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (mobile **phase**; gel permeation chromatog. for quant. detg. detergent fuel additives in gasoline and other fuels)

L3 ANSWER 17 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

Full Text

ACCESSION NUMBER: 1995:855225 CAPLUS  
 DOCUMENT NUMBER: 123:229985  
 TITLE: Multiple volume phase transition of nonionic thermosensitive gel  
 AUTHOR(S): Kawasaki, Hideya; Nakamura, Takato; Miyamoto, Keiichi; Tokita, Masayuki; Komai, Takashi  
 CORPORATE SOURCE: Faculty Engineering, Mie University, Tsu, 514, Japan  
 SOURCE: Journal of Chemical Physics (1995), 103(14), 6241-7  
 CODEN: JCPSA6; ISSN: 0021-9606  
 PUBLISHER: American Institute of Physics  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The vol. phase transition is studied in the ternary **system** of the nonionic poly(N-n-propylacrylamide) gel, water, and various alc. The gel shows a reentrant vol. phase transition in all mixed solvent systems studied here. The phase transition is **multiple** in the mixed solvent systems of water-1-propanol and water-2-propanol. These results are discussed by the mean field theory in which the effects of the chain stiffening due to the adsorption of the solvent mols. are taken into account. The adsorption and/or the desorption of the solvent mols. promote the **multiple** phase transition of the nonionic poly(N-propylacrylamide) gel.

ST polypropylacrylamide **gel phase** transition; adsorption

# STN Columbus

polypropylacrylamide **gel phase** transition; desorption  
polypropylacrylamide **gel phase** transition

L3 ANSWER 18 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3

## Full Text

ACCESSION NUMBER: 1994:211097 CAPLUS  
DOCUMENT NUMBER: 120:211097  
TITLE: Polymorphism in stratum corneum lipids  
AUTHOR(S): Ongpipattanakul, Boonsri; Francoeur, Michael L.;  
Potts, Russell O.  
CORPORATE SOURCE: Department of Pharmaceutics, School of Pharmacy,  
University of Wisconsin, Madison, WI, USA  
SOURCE: Biochimica et Biophysica Acta (1994), 1190(1), 115-22  
CODEN: BBACAQ; ISSN: 0006-3002  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Fourier transform IR spectroscopy (FTIR) was employed to investigate the thermotropic phase behavior of stratum corneum lipid multilamellae. Stratum corneum (SC), the uppermost layer of mammalian skin, is unusual in many respects. It has been demonstrated that the lipids of the stratum corneum provide the primary elec. and transport resistance in the skin. These lipids are unusual in their compn., structure and localization; they contain only cholesterol, fatty acids and ceramides and they form broad, multi-lamellar sheets which are located extracellularly. The FTIR results from both the sym. CH<sub>2</sub> stretching and the CH<sub>2</sub> scissoring vibrations suggest that the SC lipids exhibit polymorphic phase behavior below the main phase transition temp. The multiple phases are most likely cryst. mixts. of different alkyl chain packings, along with solid-liq. phases. Similarities between the FTIR results reported here for SC lipids and those obtained for cholesterol-contg. **gel phase** phospholipids suggest that the non-uniform distribution of cholesterol occurs in each **system**.

L3 ANSWER 19 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

## Full Text

ACCESSION NUMBER: 1994:86098 CAPLUS  
DOCUMENT NUMBER: 120:86098  
TITLE: Method of preparing a **multiphase** cosmetic **composition**  
INVENTOR(S): Lahanas, Konstantinos M.; Keeler, Tracy N.; Bevacqua,  
Andrew J.; Cioca, George  
PATENT ASSIGNEE(S): Estee Lauder, Inc., USA  
SOURCE: PCT Int. Appl., 37 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9321930	A1	19931111	WO 1993-US3971	19930428
W: JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5304334	A	19940419	US 1992-874933	19920428
EP 637962	A1	19950215	EP 1993-910857	19930428
EP 637962	B1	20000105		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 07506529	T2	19950720	JP 1993-519474	19930428
JP 2873253	B2	19990324		
AT 188381	E	20000115	AT 1993-910857	19930428
PRIORITY APPLN. INFO.:			US 1992-874933	19920428
			WO 1993-US3971	19930428

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TI Method of preparing a **multiphase** cosmetic **composition**  
 AB A method of prepg. and stabilizing compns. useful as skin moisturizers comprising distinct phases of water, gel, liq. crystal or oil and perfluoroether dispersed in a continuous phase of a silicone fluid is disclosed. A cosmetic moisturizer contained 1.5% aq. soln. of Hypan SS-201 11.25, DC Q2-1403 15.0, DC Q2-3225C 5.0 % in the water in silicone phase; 3.5% Carbopol 940 25.25, Lubragel MS 18.0, Germall 115 0.3, Na2EDTA 0.1, methylparben 0.1, and triethanolamine 1.0% in the hydrophilic **gel phase**; Fomblin HC/25 2.0% in the perfluoropolyether phase; and Licritherm 789 5.0% in the liq. cryst. phase. Use of the compn. for 8 wks caused a 35% improvement in skin moisturization over untreated skin and despite a 2 wks discontinuation of use, the skin was a 18% more moisturized than untreated skin.

L3 ANSWER 20 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

### Full Text

ACCESSION NUMBER: 1993:498398 CAPLUS  
 DOCUMENT NUMBER: 119:98398  
 TITLE: Kinetics of sol-gel transition on thermoreversible gelation of gelatin  
 AUTHOR(S): Bohidar, Himadri B.; Jena, Sidhartha S.  
 CORPORATE SOURCE: Sch. Phys. Sci., Jawaharlal Nehru Univ., New Delhi, 110067, India  
 SOURCE: Journal of Chemical Physics (1993), 98(11), 8970-7  
 CODEN: JCPSA6; ISSN: 0021-9606  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The sol-gel transition in dil. gels of gelatin are studied by DSC and static light-scattering techniques. The sol-gel **phase** diagram clearly shows the existence of an upper crit. soln. temp. in this **system**. The DSC data conclusively exhibit 2 more phase curves in the sol state: one pertaining to the coexistence of monomers and aggregates, and the 2nd one sepg. the random coil and helix domains in the soln. phase. The Ferry-Eldridge equation is used to det. the enthalpy of the melting of the gel structure ( $30 \pm 2.0$  kcal mol<sup>-1</sup>). The gelation temp. ( $T_g$ ) is correlated to Flory's statistical model of gelation, which gives the enthalpy of melting of pure gelation crystallites ( $35 \pm 2.0$  kcal cm<sup>-3</sup>) and crystallite melting temp. ( $588 \pm 20.0$  K). The Flory-Huggins interaction parameter is  $0.49 \pm 0.05$ . Interesting scaling behavior is obsd. through light scattering measurements. For the intensity of scattered light,  $I_s \sim \epsilon$  and  $I_s \sim \epsilon_0 - \beta$ ;  $\epsilon = (T/T_g - 1)$ ;  $T > T_g$  and  $\epsilon_0 = (t/t_g - 1)$ ;  $t < t_g$ , where  $t$  is the time and  $t_g$  is the gelation time for  $\epsilon$  and  $\epsilon_0 < 0.5$  with  $\gamma$  simeq.  $\beta$  simeq.  $0.02 \pm 0.005$ . The initial phase of cooling of the sol is analyzed within the framework of Smoluchowski aggregation kinetics. It is proposed that the sol-gel transition path in this polymer has 3 distinct steps: monomer aggregation, coil-single-helix transition, and single-helix-**triple**-helix transition followed by gelation.

L3 ANSWER 21 OF 32 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

### Full Text

ACCESSION NUMBER: 1990:258595 BIOSIS  
 DOCUMENT NUMBER: PREV199090000681; BA90:681  
 TITLE: MIXTURES OF SEMISYNTHETIC SPECIES OF CEREBROSIDE SULFATE WITH DIPALMITOYL PHOSPHATIDYLCHOLINE THERMOTROPIC PHASE BEHAVIOR AND PERMEABILITY.  
 AUTHOR(S): BOGGS J M [Reprint author]; MULHOLLAND D; KOSHY K M  
 CORPORATE SOURCE: DEP BIOCHEMISTRY, HOSP SICK CHILDREN 555 UNIVERSITY AVE, TORONTO, ONT, CANADA M5G 1X8  
 SOURCE: Biochemistry and Cell Biology, (1990) Vol. 68, No. 1, pp. 70-82.

# STN Columbus

CODEN: BCBIEQ. ISSN: 0829-8211.  
 DOCUMENT TYPE: Article  
 FILE SEGMENT: BA  
 LANGUAGE: ENGLISH  
 ENTRY DATE: Entered STN: 5 Jun 1990  
 Last Updated on STN: 6 Jun 1990

AB. . . in 0.1 M KCl was studied using differential scanning calorimetry. DPPC and C16:0-CBS were miscible in all proportions in the **gel phase** above 10 mol% CBS and in the liquid-crystalline phase. However, C24:0-CBS was less miscible with DPPC over a wide concentration range in **gel phase**. At high CBS concentrations it was probably also not entirely miscible with DPPC in the liquid-crystalline phase. Small amounts of . . . transition temperature and enthalpy of DPPC, suggesting that they are more soluble in the liquid-crystalline phase of DPPC than the **gel phase**. The transition temperature at higher CBS concentrations was also less than expected, especially after cycling through the phase transition in. . . of CBS. In C24:0-CBS-DPPC mixtures several populations were present over a wide compositional range, including two solid-solid solutions of fixed **composition**. At high C24:0-CBS concentrations some C24:0-CBS also phase separated out of the mixture. Structural considerations suggested that the C24:0-CBS which. . . 18:14PC), to a water-soluble spin label tempocholine chloride was also measured. The studies with 18:10PC and 18:13PC indicated that both **triple-chain** mixed interdigitated bilayers and double-chain partially interdigitated bilayers can trap water-soluble substances and have low permeability. Both species of CBS. . .

L3 ANSWER 22 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4

## Full Text

ACCESSION NUMBER: 1990:50913 CAPLUS  
 DOCUMENT NUMBER: 112:50913  
 TITLE: The ordering and dynamics of the terminal methyl group on the lignoceric acid chain in cerebroside sulfate  
 AUTHOR(S): Jeffrey, K. R.; Boggs, J. M.; Koshy, K. M.; Tulloch, A. P.  
 CORPORATE SOURCE: Dep. Phys., Univ. Guelph, Guelph, ON, N1G 2W1, Can.  
 SOURCE: Biochimica et Biophysica Acta (1989), 986(2), 241-9  
 CODEN: BBACAQ; ISSN: 0006-3002  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Cerebroside sulfate contg. lignoceric acid deuterated at the terminal Me group was prepd. by a semi-synthetic method in order to study the ordering and motion of the fatty acyl chain by deuterium NMR spectroscopy. The lipid was hydrated with either 2M KCl or 2M LiCl. The NMR results are consistent with the formation of an interdigitated bilayer in the **gel phase** as suggested by spin-label and x-ray diffraction studies, although they do not delineate whether the interdigitation is of the partial or mixed **triple-chain** type. In the low-temp. stable phase formed by this lipid on slow cooling from the liq.-cryst. phase, which has been shown by x-ray diffraction to be partially interdigitated, the dominant mol. motion is reorientation of the lipid about its long axis. The motion had a correlation time of the order of the deuterium quadrupole coupling const. (10<sup>-6</sup> s). The rate of axial diffusion is greater than that found for sym. phospho- or glycosphingo-lipids in their cryst. subgel phases, but less than that of a lipid which forms a non-interdigitated **gel phase** bilayer such as dipalmitoylphosphatidylethanolamine, or a lipid which forms a fully interdigitated **gel phase** bilayer like dihexadecylglycerophosphocholine. The rate of motion appears to be greater in a low temp., more hydrated metastable phase formed by this lipid after cooling rapidly from the liq. cryst. phase. This phase is thought to be a mixed interdigitated bilayer based on spin label studies. The disorder obsd. at the C-terminal Me group in the L $\alpha$  phase, which



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is probably partially interdigitated according to x-ray diffraction studies, is greater than that of a non-interdigitated bilayer formed by a sym. lipid. In the cerebroside sulfate/Li+ **system** at high temp., there is evidence for a liq.-cryst. to liq.-cryst. phase transition, in which the av. orientation of the terminal Me group changes.

L3 ANSWER 23 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

### Full Text

ACCESSION NUMBER: 1991:590553 CAPLUS  
DOCUMENT NUMBER: 115:190553  
TITLE: Orientation of rods formed by aggregated surfactants in organic media: the steroid-cyclohexane physical gel case  
AUTHOR(S): Terech, P.  
CORPORATE SOURCE: Inst. Laue-Langevin, Grenoble, F-38042, Fr.  
SOURCE: Progress in Colloid Polymer Science (1989), 79(Trends Colloid Interface Sci. 3), 81-7  
CODEN: PCPSD7; ISSN: 0340-255X  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The phys. gels obtained by aggregation of a steroid deriv. in cyclohexane were studied. The amphiphilic steroid mol. can give infinite rod-like aggregates by a **multiple** H bonding process. At a crit. filamentary concn., viscoelastic gels are obtained through a sharp sol-gel threshold. Some preliminary results concerning rod orientation effects in this **system** are discussed. Long-range orientation order is obsd. in concd. gel samples as a consequence of excluded vol. effects. Typical schlieren optical textures characterize nematic-like domains in the samples. The use of strong magnetic fields during the steroid aggregation kinetics can give strikingly higher order parameters. The initial state of these expts. is a dild. sol phase. A slow steroid aggregation reaction gives rise to a slow viscosity increase of the sol phase and allows the reorientational motion of the rod-like aggregates. An oriented xerogel is obtained from demixion of the unstable **gel phase**. This behavior is in qual. agreement with the theor. predictions concerning rigid rod-like polymers in soln. Polarizing optical microscopy, magnetically induced optical birefringence and two-dimensional small-angle neutron scattering patterns were used to detect the anisotropic states.

IT Magnetic field, chemical and physical effects  
(on aggregation, of steroids in org. **gel phase**)

L3 ANSWER 24 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

### Full Text

ACCESSION NUMBER: 1989:64125 CAPLUS  
DOCUMENT NUMBER: 110:64125  
TITLE: Behavior of water molecules associated with the phase transitions in the binary system of dioctadecyldimethylammonium chloride with water studied by proton and deuterium magnetic resonances  
AUTHOR(S): Fujiwara, Toshimichi; Kobayashi, Yuji; Kyogoku, Yoshimasa; Kuwabara, Mika; Kodama, Michiko; Seki, Shuzo  
CORPORATE SOURCE: Inst. Protein Res., Osaka Univ., Suita, 565, Japan  
SOURCE: Journal of Colloid and Interface Science (1989), 127(1), 26-34  
CODEN: JCISA5; ISSN: 0021-9797  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Solid state 1H NMR spectra were measured for the binary **system** of dioctadecyldimethylammonium chloride and water in different phases and at different compns. From the lineshape and relaxation measurements it was shown that water in each phase consisted of **multiple** forms. In

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particular, the existence of intermediate water detected by thermal analyses was proved. The NMR data also provided information on the dynamic behavior of water. The motion of the intermediate water in the **gel phase** was remarkable. By anal. of the split <sup>1</sup>H NMR pattern due to dipole coupling and quadrupole splitting in the <sup>2</sup>H NMR spectra, an image of the motion of the intermediate water could be obtained.

L3 ANSWER 25 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

### Full Text

ACCESSION NUMBER: 1987:80608 CAPLUS  
DOCUMENT NUMBER: 106:80608  
TITLE: Structural intermediates in phase transitions involving crystalline phase bilayers of monogalactosyldiacylglycerol in water  
AUTHOR(S): Quinn, Peter J.; Lis, Leonard J.  
CORPORATE SOURCE: Dep. Biochem., King's Coll. London, London, W8 7AH, UK  
SOURCE: Journal of Colloid and Interface Science (1987), 115(1), 220-4  
CODEN: JCISA5; ISSN: 0021-9797  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The mechanism of transition of a satd. monogalactosyldiacylglycerol-water **system** from low-temp. crystal phases (LC1 and LC2) to the liq.-crystal phase ( $\alpha$ ) was examd. by time-resolved x-ray diffraction methods. The transition between the metastable LC1 phase and the liq.-cryst. phase involved a continuous transition from one phase to the other with apparently no intermediate phases with lifetimes of >100 ms. The transition between the LC2 phase and the liq.-cryst. phase, by contrast, was complex and involved intermediate phases or transitory states with lifetimes of a few hundred milliseconds. This complex behavior appeared to be related to the existence of **multiple**-phase pathways along which the LC2 phase may proceed to the liq.-cryst. phase. There was evidence that both metastable LC1 phase and a lamellar **gel phase** (L $\beta$ ) may be involved.

L3 ANSWER 26 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 5

### Full Text

ACCESSION NUMBER: 1986:84698 CAPLUS  
DOCUMENT NUMBER: 104:84698  
TITLE: Phospholipid lateral organization in synthetic membranes as monitored by pyrene-labeled phospholipids: effects of temperature and prothrombin fragment 1 binding  
AUTHOR(S): Jones, Marcie E.; Lentz, Barry R.  
CORPORATE SOURCE: Cent. Thrombosis Hemostasis, Univ. North Carolina, Chapel Hill, NC, 27514, USA  
SOURCE: Biochemistry (1986), 25(3), 567-74  
CODEN: BICHAW; ISSN: 0006-2960  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Pyrene-labeled phospholipids were used to test for the existence of lateral domains due to temp.-induced phase sepns. and binding of prothrombin fragment 1 to charged lipid vesicles. When in close proximity, pyrene-contg. probes can exchange excited-state energy to form excimers; the ratio of the excimer to monomer fluorescence intensity (E/M) is proportional to the local concn. of probe in the membranes, as well as to the excimer lifetime and the probe's lateral diffusion coeff. The ability of the pyrene-labeled phospholipids to quant. report the coexistence of **multiple** environments was demonstrated in dipalmitoylphosphatidylcholine/palmitoyloleoylphosphatidylcholine multilamellar vesicle prepns. of varying compns., each of which contained coexisting fluid and gel phases. In this **system**, pyrene-labeled

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phosphatidylcholine (py-PC) favored the fluid relative to the **gel phase** with a partition coeff. of 7. At 37°, in dioleoylphosphatidylglycerol (DOPG)/palmitoylloleoylphosphatidylcholine (POPC) large, unilamellar vesicles contg. either pyrene-labeled phosphatidylglycerol (py-PG) or py-PC, the excimer lifetime (37 ns) and the lateral diffusion const. of the probe ( $5.8 \times 10^{-8}$  cm<sup>2</sup>/s) were independent of the membrane compn. and of the presence of fragment 1 and Ca<sup>2+</sup>. Consequently, E/M was directly proportional to only the local concn. of the py-PG or py-PC probes. When satg. amts. of fragment 1 and 5 mM Ca<sup>2+</sup> were added to DOPG/POPC vesicles that contained either probe, no change in E/M and hence the local probe concn. was obsd. These results were interpreted in terms of a model in which fragment 1 binds (probably via Ca<sup>2+</sup> bridges) to <5-10 DOPG mols., rather than inducing an extensive DOPG-rich binding domain.

L3 ANSWER 27 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

## Full Text

ACCESSION NUMBER: 1982:478699 CAPLUS  
DOCUMENT NUMBER: 97:78699  
TITLE: **Multiphase cosmetic composition**  
INVENTOR(S): Barker, Patricia I. M.; Ziskin, Nathan A.; Grossfeld, Michael J.  
PATENT ASSIGNEE(S): Almay, Inc., USA  
SOURCE: U.S., 6 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4335103	A	19820615	US 1977-781573	19770328

PRIORITY APPLN. INFO.: US 1977-781573 19770328

TI **Multiphase cosmetic composition**

AB A dual phase cosmetic cleansing cream compn. consists of 2 sep. and stable phases: the first phase being an emulsified cream compn., while the second being a **gel phase**. The cream phase which functions as a cleanser consists of an oil (40-65%), H<sub>2</sub>O (20-50%) and a thickening agent (0.25-1.7%) and an emulsifier (1.0-9.0% by wt. of the cream phase). The **gel phase** which acts as a conditioner consists of water (80-95%) and a thickening agent (0.5-4% by wt.). The resp. cream and gel phases are intimately mixed and blended in a swirl type configuration where the phases remain stable and visually distinct. Carbomer 934 [9007-16-3] Is used as a thickening agent in both cream and gel phases and the emulsifier is Polysorbate 20 [9005-64-5]. The viscosity of both the phases is 40,000-15,000 cP. The compns. also consist of sequestering agent, humectant, preservatives and UV light inhibitors.

ST cream **gel phase** cosmetic; thickening agent cream **gel phase**; emulsifier cream **gel phase**

L3 ANSWER 28 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

## Full Text

ACCESSION NUMBER: 1978:517625 CAPLUS  
DOCUMENT NUMBER: 89:117625  
TITLE: Formation of liquid crystal and other nonfluid phases in emulsions containing nonionic surfactants  
AUTHOR(S): Ali, A. A.; Mulley, B. A.  
CORPORATE SOURCE: Postgrad. Sch. Stud. Pharm., Univ. Bradford, Bradford, UK  
SOURCE: Journal of Pharmacy and Pharmacology (1978), 30(4), 205-13

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CODEN: JPPMAB; ISSN: 0022-3573

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Phase equil. diagrams of dispersions formed in a 4-component **system** contg. dodecane [112-40-3], H<sub>2</sub>O, and 2 homogeneous nonionic surfactants showed a narrow 3-phase region where gel or liq. crystal and 2 isotropic liq. phases were present. Dispersions contg. the **gel phase** were very stable. In the presence of sufficient amts. of the short chain nonionic surfactant C<sub>10</sub>H<sub>21</sub>(OCH<sub>2</sub>CH<sub>2</sub>)<sub>3</sub>OH [4669-23-2], a 3-liq. phase region occurred where **multiple** drops readily formed.

L3 ANSWER 29 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

Full Text

ACCESSION NUMBER: 1977:557545 CAPLUS

DOCUMENT NUMBER: 87:157545

TITLE: Phase transitions in adsorbates: Part IV. Behavior of acetic acid, dioxane, and p-xylene adsorbed on silica gel

AUTHOR(S): Lakhanpal, M. L.; Joshi, I. M.; Sharma, B. B.; Sharma, S. C.

CORPORATE SOURCE: Dep. Chem., Panjab Univ., Chandigarh, India

SOURCE: Indian Journal of Chemistry, Section A: Inorganic, Physical, Theoretical Analytical (1977), 15A(4), 276-9

CODEN: IJCADU; ISSN: 0376-4710

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Vapor pressure-temp. studies on adsorbate-adsorbent systems were analyzed. For a particular **system**, the apparent freezing points obtained from log p vs. 1/T plots lie on a straight line passing through the f.p. of the pure adsorbate. The slopes (m) of such linear plots obtained for different adsorbate-adsorbent systems have the same order of magnitude such that  $\Delta H^* = 2.303 Rm$  (related to the heat of transition) has an av. value of  $15.3 \pm 1.0$  kcal/mol. Log p vs. 1/T plots for adsorbate-adsorbent systems after commencement of freezing represent a gradual shift of the **triple** point. A method for the calcn. of apparent depression in f.ps. ( $\Delta T$ ) is suggested. F.p. depression and heat of phase transition are given for AcOH, dioxane, and p-xylene adsorbed on silica gel.

IT 64-19-7, properties 123-91-1, properties 1330-20-7, properties

RL: PRP (Properties)

(adsorbed, on silica **gel**, **phase** transitions of, vapor pressure is study of)

L3 ANSWER 30 OF 32 KOSMET COPYRIGHT 2004 IFSCC on STN

Full Text

ACCESSION NUMBER: 29662 KOSMET

FILE SEGMENT: scientific, technical

TITLE: STRUCTURE AND RHEOLOGY OF SEMISOLID O/W CREAMS CONTAINING CETYL ALCOHOL/NON-IONIC SURFACTANT MIXED EMULSIFIER AND DIFFERENT POLYMERS

AUTHOR: RIBEIRO HM (RIBEIRO HM (1), MORAIS JA (1), ECCLESTON GM (2)=LABORATORIO DE DERMOFARMACIA E COSMETICA, FACULDADE DE FARMACIA DA UNIVERSIDADE DE LISBOA, AV. DAS FORCAS ARMADAS, 1649-003 LISBOA, PORTUGAL, EMAIL: [helena.ribeiro@ff.ul.pt](mailto:helena.ribeiro@ff.ul.pt) (1), DEPARTMENT OF PHARMACEUTICAL SCIENCES, UNIVERSITY OF STRATHCLYDE, GLASGOW G1 1XW, UNITED KINGDOM (2)); MORAIS JA; ECCLESTON GM

SOURCE: INTERNATIONAL JOURNAL OF COSMETIC SCIENCE, 2004, 26, 2 (APRIL), 47-59, 22 REFS  
Meeting Organizer: SOCIETY OF COSMETIC SCIENTISTS,

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DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Oil-in-water (o/w) emulsions for cosmetic use, such as lotions and  
creams, are complex **multiple**-phase systems, which may contain a number  
of interacting surfactants, fatty amphiphiles, polymers and other  
excipients. This study investigates the influence. . . phase, the  
semisolid properties were probably because of the ability of the gum of  
acacia to stabilize and thicken the **emulsion** in the absence of the  
swollen lamellar network. In conclusion, the influence of three different  
polymeric gels, Polyquaternium-7 (Merquat (r)). . . the cationic  
polymers did not associate with the non-ionic surfactant alone, but  
possibly reduced the swelling of the lamellar crystalline **gel phase**,  
thereby increasing the continuous phase-free water content. In contrast,  
the gum of acacia cream reminded semisolid, contained smaller droplets  
and. . . excipients in the cream. As with the cationic polymer creams,  
the gum of acacia reduced the swelling of the lamellar **gel phase**.  
However, unlike the cationic polymer creams, there was also an  
interaction between gum of acacia and the non-ionic surfactant, as. . .

L3 ANSWER 31 OF 32 KOSMET COPYRIGHT 2004 IFSCC on STN

## Full Text

ACCESSION NUMBER: 27178 KOSMET  
FILE SEGMENT: scientific, technical  
TITLE: THE HUMAN SKIN BARRIER - COSMETIC IMPLICATIONS  
AUTHOR: NORL N L (DEPARTMENT OF PHYSICS, UNIVERSITY OF GENEVA,  
GENEVA, SWITZERLAND)  
SOURCE: EURO COSMETICS, 2002, 10, 9, 31-36, 33 REFS  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB. . . (in view, e.g. of cosmetic applications) should therefore be done  
with the greatest caution. The "membrane folding model" and "single  
**gel-phase** model" may, however, constitute a tool, or at least an  
attempt, to interpret existing and future data in a more rational way. In  
general, the "membrane folding model" and the "single **gel-phase**  
model" can be regarded as a direct continuation of the "brick and mortar"  
model of Michaelis et. Al. (1975), which treated the skin barrier a  
simplified two-compartment **system** with a discontinuous protein  
compartment embedded in a continuous, isotropic lipid matrix. The  
structural organization and phase behavior (i.e., the. . . which  
directly determines skin barrier capacity, was, however, left for future  
considerations. Consequently, the "membrane folding model" and the  
"single **gel-phase** model" is directly concerned with the structural  
organization and phase behavior of this continuous lipid compartment of  
the intercellular space of stratum corneum. In essence, the single  
"**gel-phase**" proposed in the "single **gel-phase** model" is  
postulated to be created through the "crystallization", "condensation" or  
"close-packing" of a "flattened" liquid crystalline membrane, with only.

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. . lipids during the crystallization process. Given the high cholesterol content of the stratum corneum intercellular lipid matrix, the proposed single "gel-phase" is by the crystallographic definition a crystal in cholesterol-deficient areas and a liquid crystal in cholesterol-rich areas. The "single gel-phase model" differs in a most significant way from earlier models of the structural organization of the continuous lipid matrix of. . . is present in the unperturbed endogenous barrier structure. The direct consequence for skin barrier capacity of a single and coherent "gel-phase", as opposed to a multi-phase system composed of different crystalline and liquid crystalline phases with sharp domain boundaries, is that it offers (a) a continuous barrier. . .

L3 ANSWER 32 OF 32 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN Full Text

ACCESSION NUMBER: 2002:148497 BIOSIS

DOCUMENT NUMBER: PREV200200148497

TITLE: Gel-phase synthesis of a difficult sequence peptide on 1,4-butanediol dimethacrylate-crosslinked polystyrene support.

AUTHOR(S): Krishnakumar, I. M.; Mathew, Beena [Reprint author]

CORPORATE SOURCE: School of Chemical Sciences, Mahatma Gandhi University, Priyadarshini Hills, Kottayam, KER, India  
mgu@md2.vsnl.net.in

SOURCE: Letters in Peptide Science, (2000 (2001)) Vol. 7, No. 6, pp. 317-323. print.  
ISSN: 0929-5666.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 14 Feb 2002

Last Updated on STN: 26 Feb 2002

TI Gel-phase synthesis of a difficult sequence peptide on 1,4-butanediol dimethacrylate-crosslinked polystyrene support.

IT . . . Equipment

Boc chemistry: Synthetic Techniques, synthetic method; LKB alpha plus 4151 amino acid analyser: laboratory equipment; Micromass Quattro II Triple quadrupole mass spectrometer: Micromass, laboratory equipment; Pharmacia semi-preparative system: Pharmacia, laboratory equipment; amino acid analysis: Molecular Biology Techniques and Chemical Characterization, analytical method; electrospray ionization mass spectrometry [ESI-MS]: Spectrum Analysis Techniques, analytical method; gel-phase synthesis: Synthetic Techniques, synthetic method; peptidyl resin: laboratory equipment, swelling capacity; quantitative ninhydrin test: Molecular Biology Techniques and Chemical Characterization,. . .

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